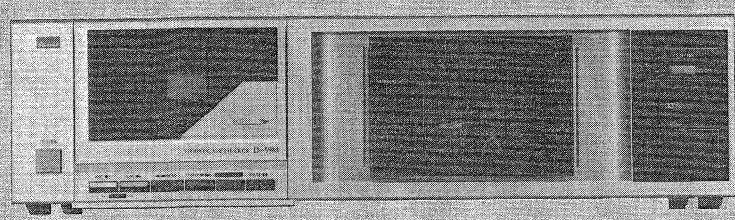
SERVICE MANUAL

STEREO CASSETTE DECK

SANSUI D-59M

(Silver & Black Model)



Note
D-59M is additional model which external appearances are different from those of D-55M.
This manual contains OTHER PARTS LIST, PACKING LIST and ACCESSORY LIST in which changed parts are printed with bold-face.
For other parts list, refer to D-55M service manual previously issued. 73

Sansui

SANSUI ELECTRIC CO., LTD.

•SPECIFICATIONS

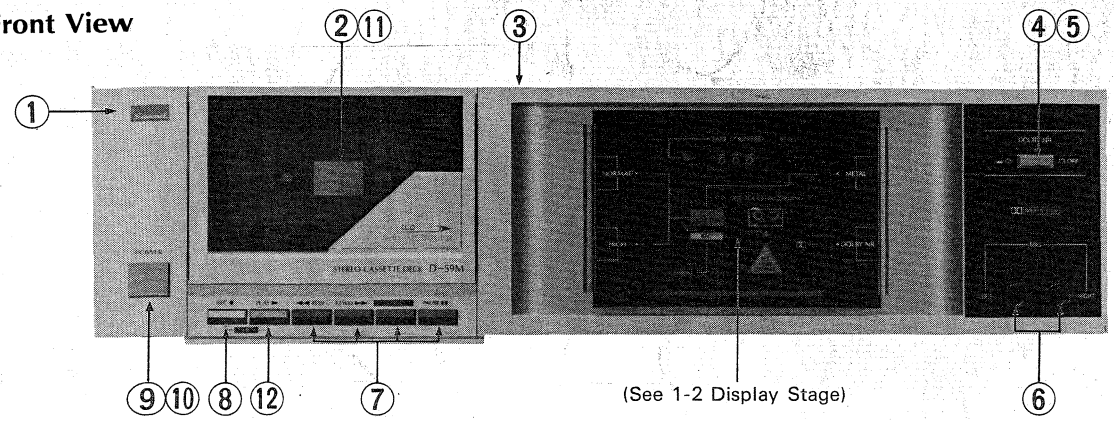
Track ..... 4-Track (2-Channel Stereo)
Tape Speed ..... 4.8 cm/sec. (1-7/8 ips)
Motor ..... Electronically Controlled DC Motor
Wow and Flutter ..... within 0.07% WRMS
Fast wind time ..... approximately 100 seconds (C-60)
Frequency response (Record/Playback)
Normal Tape (LH) (—20 VU)
..... 20 to 15,000 Hz
(30 to 14,000 Hz ± 3 dB)
Chrome Tape (—20 VU)
..... 20 to 16,000 Hz
(30 to 15,000 Hz ± 3 dB)
Metal Tape (—20 VU)
..... 20 to 16,000 Hz
(30 to 15,000 Hz ± 3 dB)
Signal to noise ratio (Record/Playback)
Metal Tape (without Dolby Noise Reduction Effect)
..... better than 58 dB (weighted)
(With Dolby Noise Reduction)
..... better than 68 dB
(above 5 kHz)
Erasure factor (Metal Tape)
..... more than 70 dB at 1,000 Hz
Input sensitivity and impedance (0 VU, 1,000 Hz)
MIC ..... 0.4 mV/200Ω ~ 5 kΩ
LINE IN (REC) ..... 150 mV/47 kΩ
Power requirements
Power voltage ..... 120/220/240V (50/60 Hz)
For U.S.A. and Canada
..... 120V (60 Hz)
Power consumption ... 11W
Dimensions ..... 430 mm (16-15/16″) W
118 mm (4-11/16″) H
223 mm (8-13/16″) D
Weight ..... 3.2 kg (7.1 lbs) net
4.0 kg (8.8 lbs) packed

* Design and specifications subject to changes without notice for improvements.

* The word "Dolby" is trademark of Dolby Laboratories. This product is manufactured under the licence from Dolby Laboratories.

1. OTHER PARTS

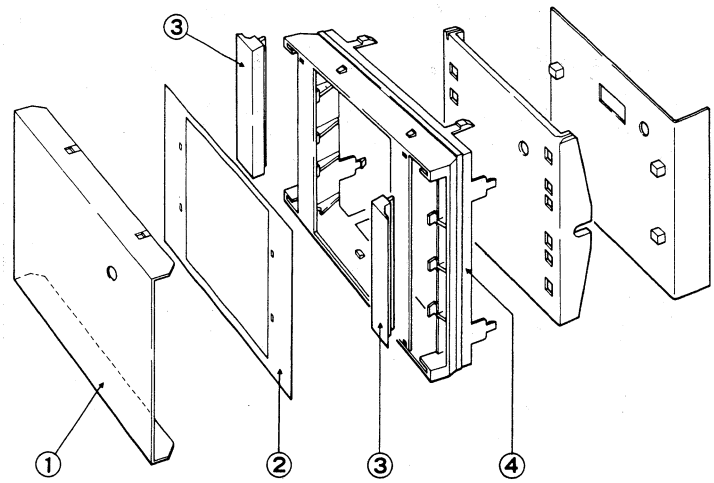
1-1. Front View



Parts List

Parts No.	Stock No.	Description
•Common Parts		
3	07966900	Bonnet
4	46365300	Push SW., DOLBY NR
6	46212000	Jack, MIC
8	37014900	Button Lever, REC
9	46360300	Push SW., POWER
11	37008300	Mechanism Cover
12	37015000	Button Lever, PLAY
•Silver Model		
1	47478400	Front Panel
2	47477900	Cassette Lid Ass'y
5	47374000	Push Knob, DOLBY NR
7	07999600	Button Lever
10	07971220	Push Knob, POWER
•Black Model		
1	47478500	Front Panel
2	47478000	Cassette Lid Ass'y
5	47374000	Push Knob, DOLBY NR
7	07999600	Button Lever
10	07911210	Push Knob, POWER

1-2. Display Stage

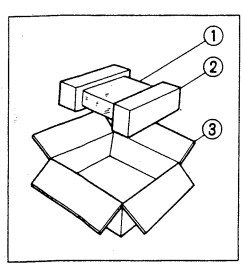


Parts List <Display Stage>

Parts No.	Stock No.	Description
1	47477800	Display Cover
2	47478300	Display Panel
3	07920200	Dress Knob
4	07921900	Display Holder

2. PACKING LIST

Parts No.	Stock No.	Description
1	91263810	Vinyl Cover
2	07949000	Styrofoam Packing
3	47479500	Carton Case (Silver Model)
	47479600	Carton Case (Black Model)



3. ACCESSORY LIST

Stock No.	Description
38103300	PJP Cord
94300500	Head Cleaner
46798800	Operating Instruction

Sansui

SANSUI ELECTRIC CO., LTD.: 14-1, Izumi 2-chome, Suginami-ku, Tokyo 168 Japan
PHONE: (03) 324-8891/TELEX: 232-2076 (International Division)
SANSUI ELECTRONICS CORPORATION: 1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.
17150 South Margay Ave. Carson, California 90746 U.S.A.
3306 Koapaka 5t. Honolulu, Hawaii 96819 U.S.A.
SANSUI ELECTRONICS (U.K.) LTD.: Unit 10A, Lyon Industrial Estate, Rockware Avenue, Geenford, Middx UB6, OAA, England
SANSUI ELECTRONICS G.M.B.H.: Pau Ehrich Strasse 8, 6074 Rödermark 2, West Germany

(SM1-129) Printed in Japan (N30620M) <Stock No. 36488800>

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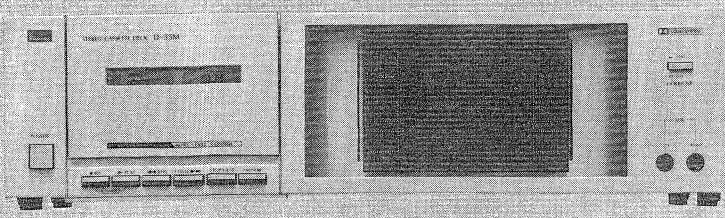
SERVICE MANUAL

STEREO CASSETTE DECK

SANSUI D-55M

(Silver & Black Model)



Sansui

SANSUI ELECTRIC CO., LTD.

● SPECIFICATIONS

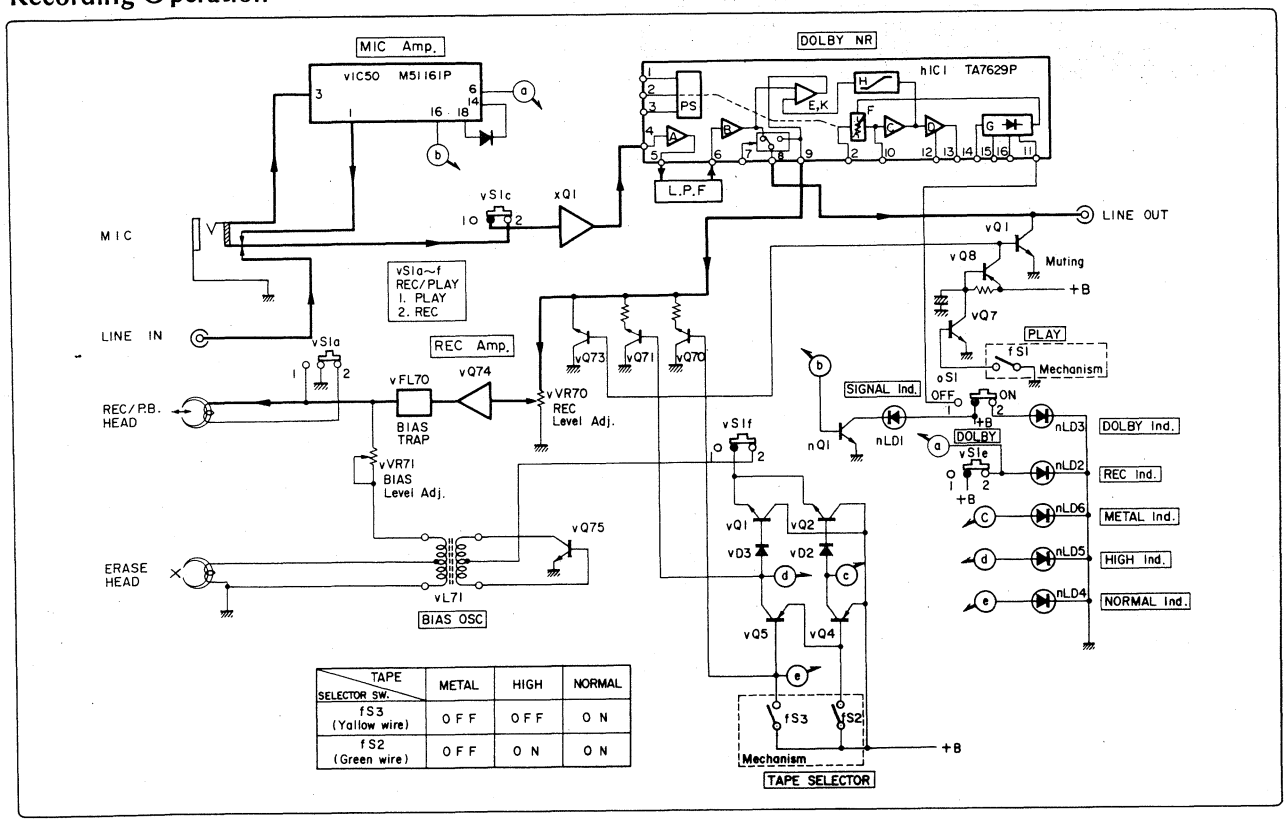
Track	4-Track (2-Channel Stereo)
Tape Speed	4.8 cm/sec. (1-7/8 ips)
Motor	Electronically Controlled DC Motor
Wow and flutter	within 0.07 % WRMS
Fast wind time	approximately 100 seconds (C-60)
Frequency response (Record/Playback)	
Normal Tape (LH) (−20 VU)	20 to 15,000 Hz (30 to 14,000 Hz ±3 dB)
Metal Tape (−20 VU)	20 to 16,000 Hz (30 to 15,000 Hz ±3 dB)
(0 VU)	30 to 12,000 Hz ±3 dB
Signal to noise ratio (Record/Playback)	
Metal Tape (without Dolby Noise Reduction Effect)	better than 58 dB (weighted)
(With Dolby Noise Reduction)	better than 68 dB (above 5 kHz)
Erasure factor (Metal Tape)	more than 70 dB at 1,000 Hz
Input sensitivity and impedance (0 VU, 1,000 Hz)	
MIC	0.4 mV/200Ω ~ 5 kΩ
LINE IN (REC)	150 mV/47 kΩ
Output level (0 VU, 1,000 Hz)	
LINE OUT (PLAY)	240 mV
Power requirements	
Power voltage	120/220/240 V (50/60 Hz)
For U.S.A. and Canada	120 V (60 Hz)
Power consumption	11 W
Dimensions	430 mm (16-15/16") W 118 mm (4-11/16") H 223 mm (8-13/16") D
Weight	3.2 kg (7.1 lbs) net 4.0 kg (8.8 lbs) packed

* Design and specifications subject to changes without notice for improvements.

* The word "Dolby" is trademark of Dolby Laboratories. This product is manufactured under the licence from Dolby Laboratories.

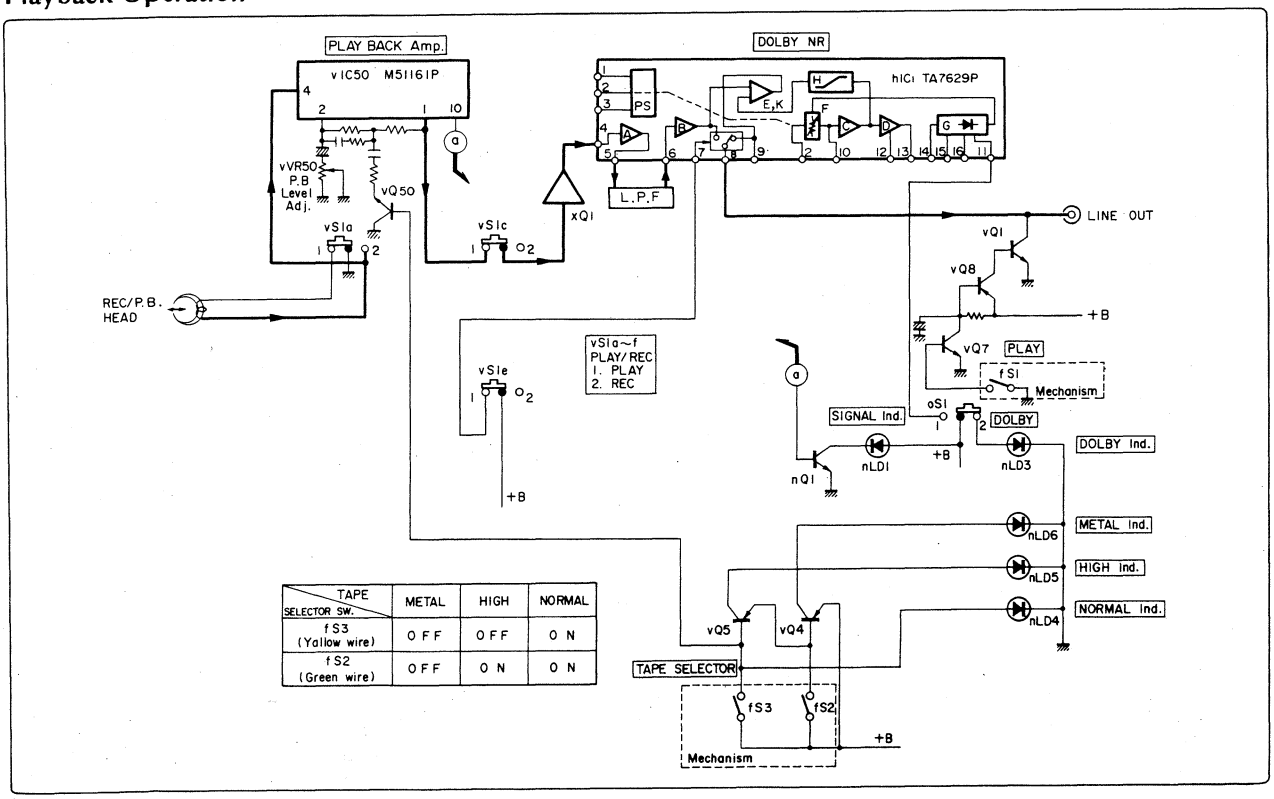
1. BLOCK DIAGRAM

1-1. Recording Operation



TAPE / SELECTOR SW.	METAL	HIGH	NORMAL
fS3 (Yallow wire)	OFF	OFF	ON
fS2 (Green wire)	OFF	ON	ON

1-2. Playback Operation



TAPE / SELECTOR SW.	METAL	HIGH	NORMAL
fS3 (Yallow wire)	OFF	OFF	ON
fS2 (Green wire)	OFF	ON	ON

2. ADJUSTMENTS

2-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-3SK (3 k Hz signals are recorded on the tape).
2. Connections are shown in Fig. 2-1.

Fig. 2-1

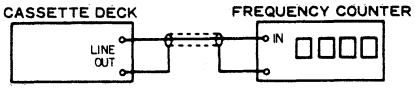
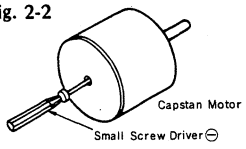


Fig. 2-2



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	TAPE SPEED Adj.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K.	Turn semi-variable resistor as Fig. 2-2.	3000 Hz ±45 Hz	Use small screw driver.

2-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. For this adjustment, use Sansui Test Tape, SCT-F10KN, SCT-L400N and SCT-F1K.
3. Set the Dolby NR switch to be OFF.
4. Connections are shown in Fig. 2-3.

Fig. 2-3

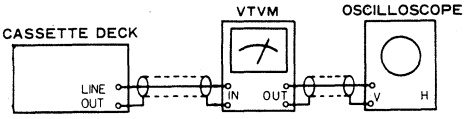
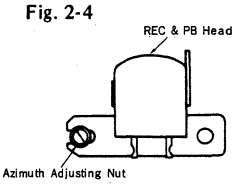


Fig. 2-4



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT, VTVM and Scope	Playback the TEST TAPE SCT-F10K	Adjust the azimuth adjusting screw in Fig. 2-4.	MAX. Output both channels.	Refer to removement of Lid Ass'y on Page 3. After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	Same as above	Playback the TEST SCT-L400	Adjust each vVR50 on L-CH and R-CH. (F-3816)	320 mV ±2 dB	See Top View on page 6.
3.	High Frequency Equalization Check	Same as above	Playback the TEST TAPE SCT-F1K.	———	———	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10K	———	———	Confirm that the output levels are within ±3 dB comparing with the above readings.

2-3. Recording Adjustment

1) Bias Adjustment

* Adjust this step, when replacing bias osc circuit, variable resistor for bias adjustment or REC/PB head.

Note: 1. For this adjustment, use Sansui Test Tape, SCT-SA.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 2-5.

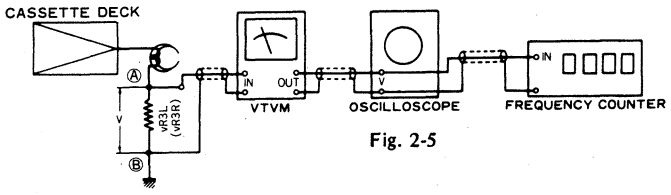


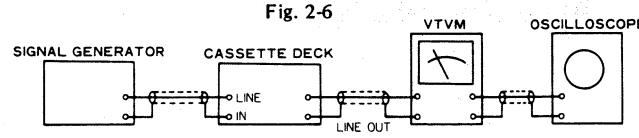
Fig. 2-5

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Recording Bias Adj.	Between Ⓐ & Ⓑ points of each vR3L & vR3R. (F-3812) VTVM, Scope, Frequency Counter	Load the TEST TAPE SCT-SA. Depress PAUSE, REC and PLAY buttons.	Adjust vVR71L for L-CH and vVR71R for R-CH, (F-3818)	4.0 mV	See Top View on page 6.
			Load the TEST TAPE SCT-AD. Depress PAUSE and REC buttons.	———	———	Confirm the indication on VTVM shows 3.2 mV.
			Load the TEST TAPE SCT-MA. Depress PAUSE and REC buttons.	———	———	Confirm the indication on VTVM shows 6.5 mV.
2.	Bias Frequency Check	Same as above	Load the TEST TAPE SCT-SA. Depress PAUSE and REC buttons.	———	———	Confirm that the Frequency Counter shows 85 kHz ±10 kHz.

2) REC Level & Frequency Response Adjustment

Note: 1. Connections are shown in Fig. 2-6.
2. Set the Dolby NR switch to be OFF.

Fig. 2-6



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1 kHz, 150 mV from S.G. into LINE IN.	LINE OUT, VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Depress PAUSE and REC button. 2. Adjust the Audio S.G. Volume for obtaining 240 mV on VTVM. 3. Push off the PAUSE button, then record the 1 kHz signal. 4. Play back the 1 kHz signal. 5. Confirm that the output levels on both channels are 240 mV ±2 dB on VTVM.	1. If not, turn vVR70 (REC, L-CH, F-3818) and vVR70 (REC, R-CH, F-3818) until output level 240 mV ±2 dB on both channel are obtained. 2. Repeat this REC Level adj. until the indication on VTVM will be 240 mV ±2 dB.	vVR70 (REC, L-CH), and vVR70 (REC, R-CH) are shown in Top View on page 6.
2.	Frequency Response Adj.	Feed 1 kHz 10 mV (−20 dB) and 10 kHz 10 mV (−20 dB) from S.G. into LINE IN.	Same as above	Load the TEST TAPE SCT-SA. 1. Record the 1 kHz and 10 kHz signals from S.G. 2. Play back the 1 kHz and 10 kHz signals, then confirm that both output levels equal.	1. If not, adjust vVR71L (F-3818) for L-CH and vVR71R (F-3818) for R-CH slightly until the output levels will be equal.	As vVR71L and vVR71R are previously adjusted, turn them slightly, if necessary.

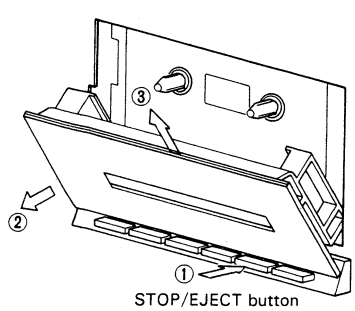
♦ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description	Equivalent To
SCT-F40	40 Hz	Playback Frequency Response Check	–
SCT-F1K	1 kHz	High Frequency Equalization Check	–
SCT-F10K	10 kHz	REC/PB Head Adjustment	–
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment	–
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check	–
*SCT-AD NORMAL (LH)	–	Recording Bias Adjustment	TDK AD
*SCT-SA HIGH (CrO_2)	–	REC/PB Level Adjustment	TDK SA
*SCT-MA (METAL)	–	Frequency Response Check	TDK MA

- Note: Some reference tapes marked * are not supplied.
As these are equivalent to ones indicated above, please obtain these blank tapes on your side as possible.

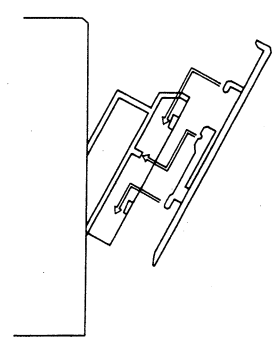
♦ Removement and Attachment of Lid Ass'y

Depress the STOP/EJECT button to open the cassette holder, and pull the lid up and then toward you to remove it as shown figure.



STOP/EJECT button

Re-attach the cover to the cassette holder by following the procedure for its removal in reverse.

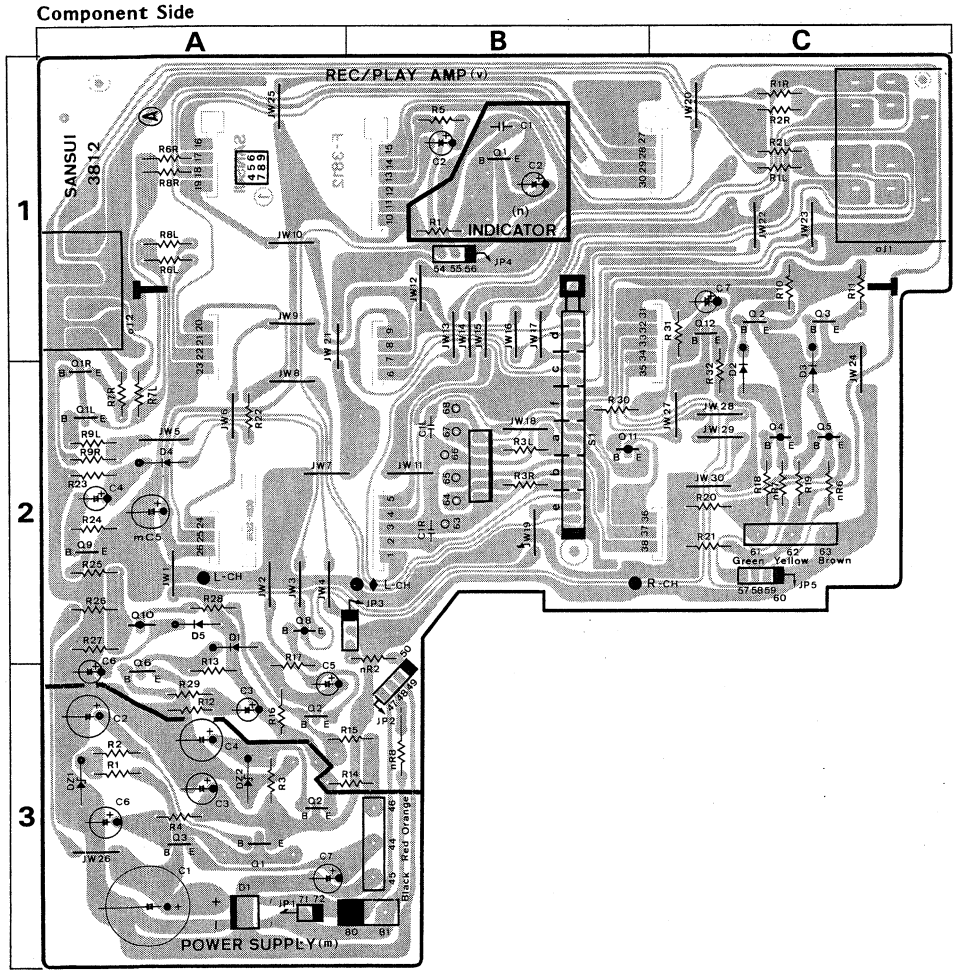


3. PARTS LOCATION & PARTS LIST

•Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

3-1. F-3812 Power Supply Circuit Board (Stock No. 00698101)

Component Side



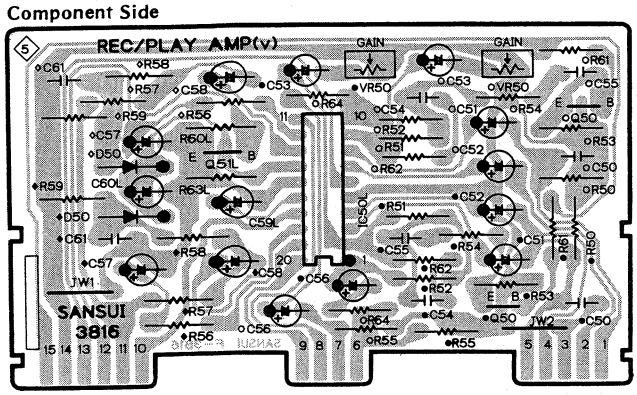
Parts List

Parts No.	Stock No.	Description
•Transistor		
mQ1	03086101	2SD357
mQ2	46367101	2SC2603
	or 46391901	2SC2785
mQ3	03085201	2SD438
•Diode		
mD1	46273600	DBB10-B
•Zener Diode		
mDZ1	46114000	05Z12-Z
mDZ2	46113200	05Z10-X
•Transistor		
nQ1	46367101	2SC2603
	or 46391901	2SC2785
nC1	07211700	1000pF 25V C.C.
oJ1	46212000	Jack, MIC
oJ2	46363800	4P Input Terminal, REC/PLAY
•Transistor		
vQ1	46367101	2SC2603
	or 46391901	2SC2785
vQ2	46367101	2SC2603
	or 46391901	2SC2785
vQ3	46367101	2SC2603
	or 46391901	2SC2785

Parts No.	Stock No.	Description
vQ4	46367001	2SA1115
	or 46392001	2SA1175
vQ5	46367001	2SA1115
	or 46392001	2SA1175
vQ6	46367101	2SC2603
	or 46391901	2SA1175
vQ7	46367101	2SC2603
	or 46391901	2SC2785
vQ8	46367001	2SA1115
	or 46392001	2SA1175
vQ9	46367101	2SC2603
	or 46391901	2SC2785
vQ10	46367001	2SA1115
	or 46392001	2SA1175
•Diode		
vD1	03117600	1S2473D
	or 46086000	1S1588
vD2	03117600	1S2473D
	or 46086000	1S1588
vD3	03117600	1S2473D
	or 46086000	1S1588
vD4	03117600	1S2473D
	or 46086000	1S1588
vD5	03117600	1S2473D
	or 46086000	1S1588
vS1	46364400	Slide SW., REC

3-2. F-3816 MIC/P.B. Amp. Circuit Board (Stock No. 00698501)

Component Side



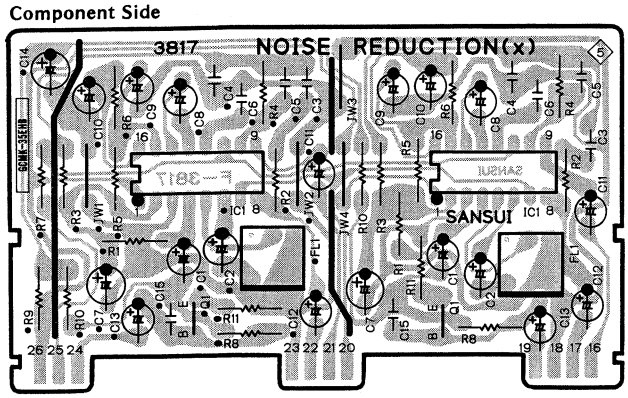
* Note: On this circuit board, the left channel is specified by "●, ◆" mark on top of the parts No.

Parts List

Parts No.	Stock No.	Description
●Transistor		
vQ50	46367101	2SC2603
	or 46391901	2SC2785
vQ51	46367101	2SC2603
	or 46391901	2SC2785
●IC		
vIC50	46362100	M51161P
●Diode		
vD50	03117600	1S2473D
	or 46086000	1S1588
vC50	07215000	2200pF 25V C.C.
vC54	07216300	27000pF 25V C.C.
vC55	07216200	22000pF 25V C.C.
vC61	07216300	27000pF 25V C.C.
vVR50	07261500	500Ω (B) SVR, P.B. level adj.

3-3. F-3817 Noise Reduction Circuit Board (Stock No. 00698601)

Component Side



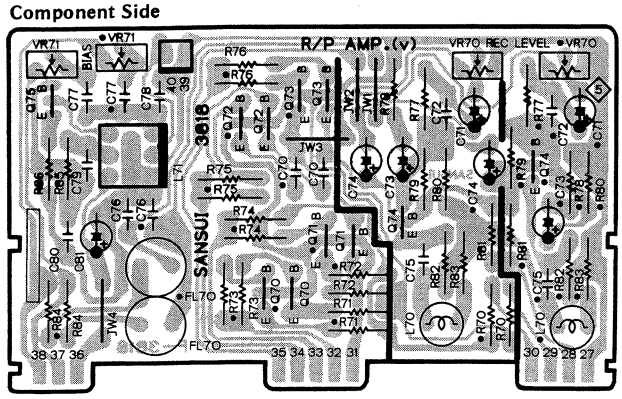
Parts List

Parts No.	Stock No.	Description
●Transistor		
xQ1	46367101	2SC2603
	or 46391901	2SC2785
●IC		
xIC1	46128200	TA7629P
xC3	07215500	5600pF 25V C.C.
xC4	07216300	27000pF 25V C.C.
xC5	07215400	4700pF 25V C.C.
xC6	07216600	47000pF 25V C.C.

* Note: On this circuit board, the left channel is specified by "●" mark on top of the parts No.

3-4. F-3818 REC Amp. Circuit Board (Stock No. 00698701)

Component Side



* Note: On this circuit board, the right channel is specified by "●" mark on top of the parts No.

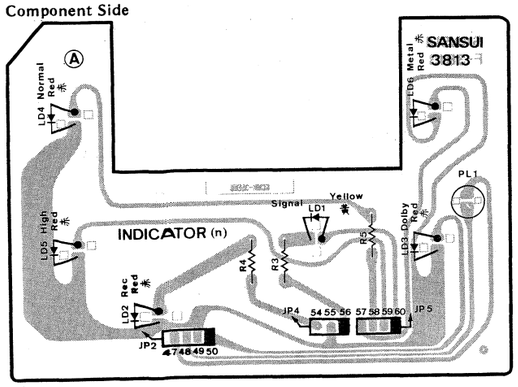
Parts List

Parts No.	Stock No.	Description
●Transistor		
vQ70	46367101	2SC2603
	or 46391901	2SC2785
vQ71	46367101	2SC2603
	or 46391901	2SC2785
vQ73	46367101	2SC2603
	or 46391901	2SC2785
vQ74	46367101	2SC2603
	or 46391901	2SC2785
vQ75	46362301	2SC1627A
vC75	07216300	27000pF 25V C.C.
vC78	00405200	0.0039μF 100V F.C.
vC79	07215400	4700pF 25V C.C.
vC80	07215400	4700pF 25V C.C.
vFL70	42904400	Trap Coil
vL70	46090700	Inductor 3.9mH
	or 46314100	Inductor 3.9mH
vL71	46362200	Bias OSC Coil
vVR70	07262000	20kΩ (B) SVR, REC level adj.
vVR71	07262100	50kΩ (B) SVR, BIAS level adj.

• The circuit boards, F-3813, F-3814 & F-3824 are not supplied as the assembled.
However, the individual parts on the circuit boards are provided by orders.

3-5. F-3813 Ind icator Circuit Board

Component Side



Parts List

Parts No.	Stock No.	Description
nLD1	07251000	Light Emitting Diode TLY-123
nLD2	46176900	Light Emitting Diode TLS-123
nLD3	46176900	Light Emitting Diode TLS-123
nLD4	46176900	Light Emitting Diode TLS-123
nLD5	46176900	Light Emitting Diode TLS-123
nLD6	46176900	Light Emitting Diode TLS-123
nPL1	46315900	Pilot Lamp 12V 1.5A

3-6. F-3814 DOLBY NR Switch Circuit Board

Parts List

Parts No.	Stock No.	Description
oS1	46365300	Push SW.

3-7. F-3824 POWER Switch Circuit Board

Parts List

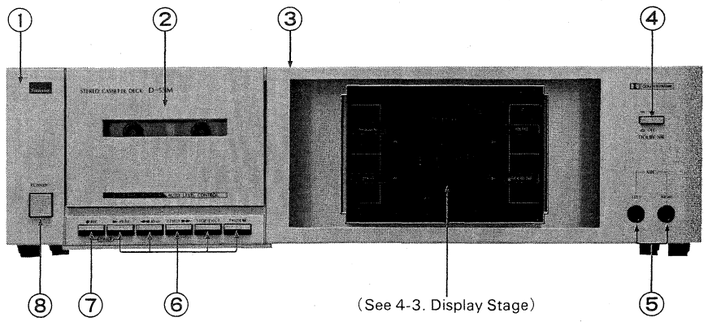
Parts No.	Stock No.	Description
pC1	46425800	0.1μF 400V C.C.
pS1	46360300	Push SW.

• Abbreviations

C.R.	: Carbon Resistor	E.B.	: Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	E.BL.	: Low Leak Bi-Polar Electrolytic Capacitor
Ce.R.	: Cement Resistor		
M.R.	: Metal Film Resistor	Ta.C.	: Tantalum Capacitor
F.R.	: Fusing Resistor	F.C.	: Film Capacitor
N.I.R.	: Non-Inflammable Resistor	M.P.	: Metalized Paper Capacitor
C.C.	: Ceramic Capacitor	P.C.	: Polystyrene Capacitor
C.T.	: Ceramic Capacitor, Temperature Compensation	G.C.	: Gimmic Capacitor
		V.R.	: Variable Resistor
E.C.	: Electrolytic Capacitor	S.V.R.	: Semi Variable Resistor
E.L.	: Low Leak Electrolytic Capacitor	SW.	: Switch

4. OTHER PARTS

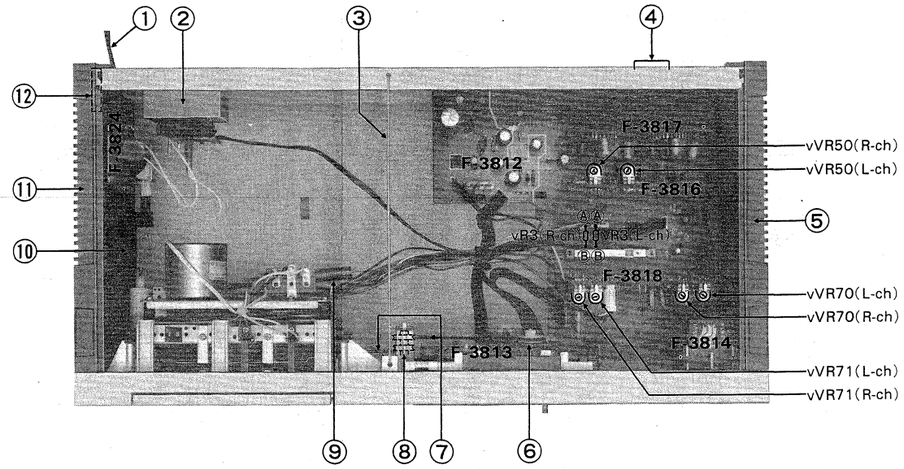
4-1. Front View



Parts List <Front View>

Parts No.	Stock No.	Description
<Common Parts>		
3	07966900	Bonnet
4	46365300	Push SW., DOLBY NR
5	46212000	Jack, MIC
7	07999800	Button Lever, REC
8	46360300	Push SW., POWER
<Silver Model>		
1	07920100	Front Panel
2	07965900	Cassette Lid Ass'y
4	07917400	Push Knob, DOLBY NR
6	07999600	Button Lever
8	07971200	Push Knob, POWER
<Black Model>		
1	07933900	Front Panel
2	07966000	Cassette Lid Ass'y
4	07917500	Push Knob, DOLBY NR
6	07999700	Button Lever
8	07911200	Push Knob, POWER

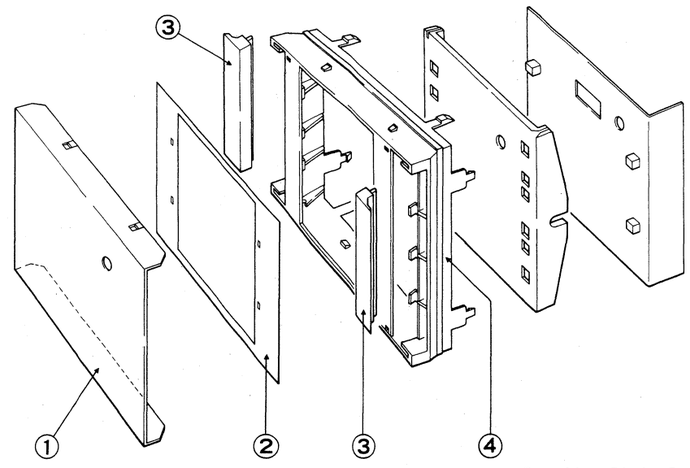
4-2. Top View



Parts List <Top View>

Parts No.	Stock No.	Description
1	38005400	Power Supply Cord
2	15007601	Power Transformer
3	———	Tension Wire
4	46363800	4P Input Terminal, REC/PLAY
5	07952700	Side Panel Ass'y (R)
6	46370400	Tape Counter
7	07976700	Belt, tape counter
8	07920600	Relay Pulley
9	07967100	REC Spring
10	07920700	Joint Shaft, power sw.
11	07952600	Side Panel Ass'y (L)
12	07917700	AC Cord Cover

4-3. Display Stage

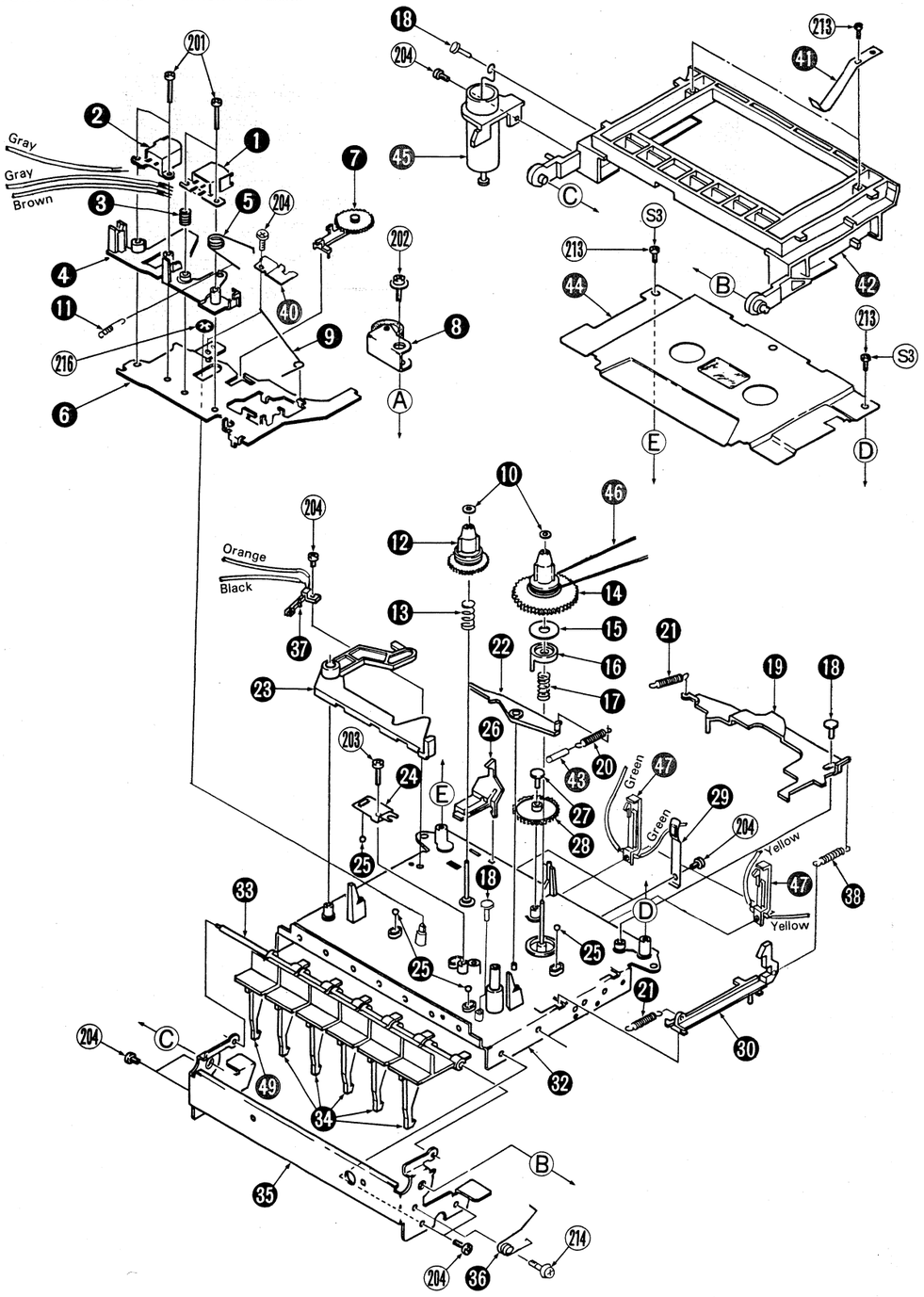


Parts List <Display Stage>

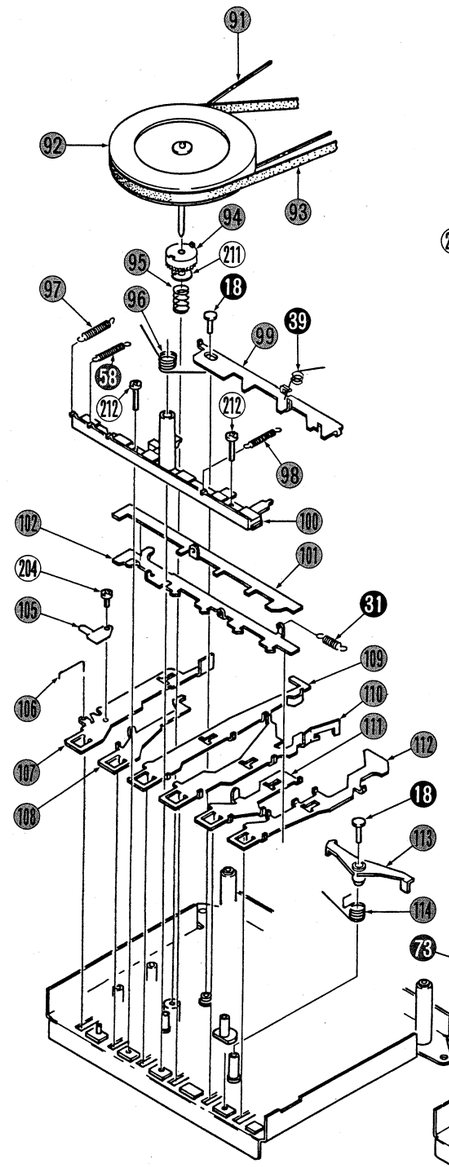
Parts No.	Stock No.	Description
1	07920900	Display Cover
2	07947100	Display Panel <Silver Model>
	07933700	Display Panel <Black Model>
3	07920200	Dress Knob
4	47020400	Display Holder <Silver Model>
	07921900	Display Holder <Black Model>

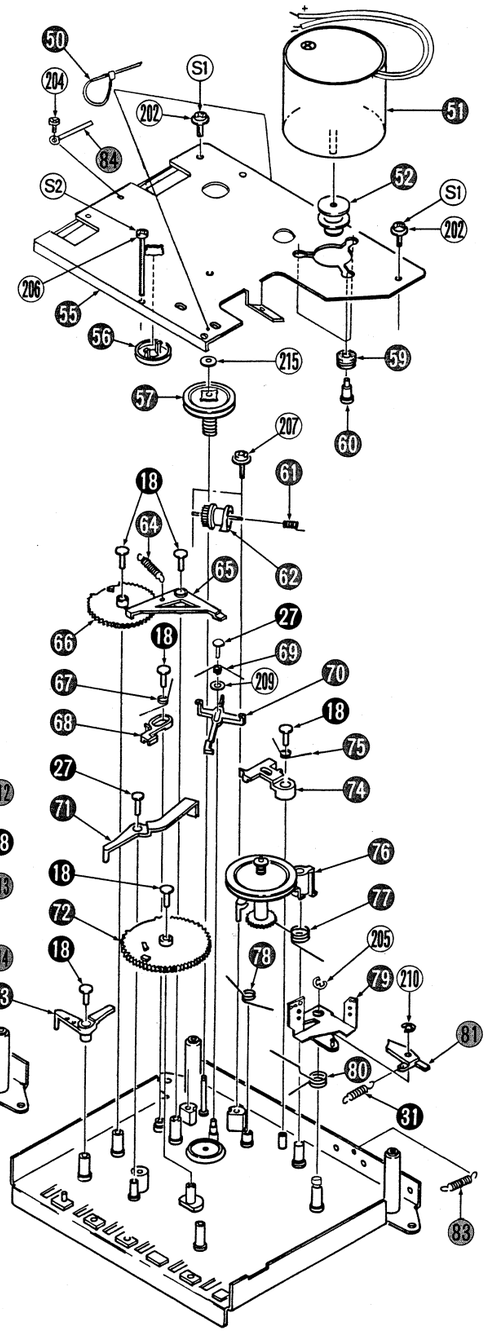
5. EXPLODED VIEW OF MECHANISM Ass'y & PARTS LIST

5-1. Front View of Mechanism Chassis



5-2. Rear View of Mechanism Chassis





1 ~ 40
41 ~ 80
81 ~ 120
201 ~ 220

- Though every part included in mechanism ass'y is numbered in exploded view, part unlisted in the parts list are not supplied.

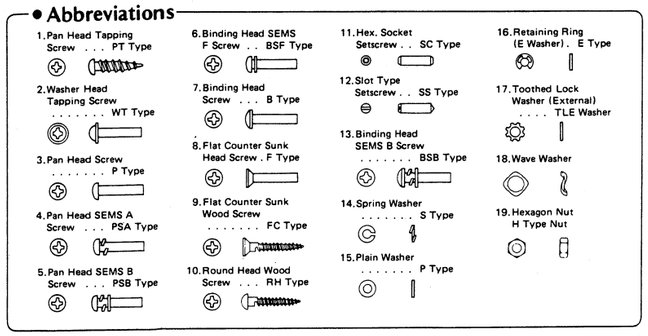
Parts List <Mechanism Ass'y (5-1/5-2)>

Parts No.	Stock No.	Description
1	07997300	REC/P.B. Head
2	07997400	Erase Head
3	09409700	C. Spring
4	07997500	Head Stand
5	07997600	Spring
7	07997700	Idler Ass'y B
8	07997800	Pinch Roller Arm Ass'y
9	07997900	Spring
10	09417300	Washer
11	07998000	T. Spring
12	09410100	Supply Reel Hub
13	09425000	S Brake Spring
14	07998100	Take Up Reel Hub Ass'y
15	09410400	Friction Plate
16	07998200	Clutch Plate
17	09425100	C. Spring
18	07998300	Rivet
19	07998400	Brake
20	07998500	T. Spring
21	09409500	T. Spring
22	07998600	Pause Arm
23	07998700	Cam Lever Ass'y
24	07998800	Holder Plate
25	65400300	Steel Ball
26	07998900	REC Sensor Lever
27	07999000	Rivet
28	07999100	Idler Gear
29	07999200	Cassette Holder
30	07999300	Latch Lever
31	07999400	T. Spring
34	07999600	Button Lever (Black Model)
	07999700	Button Lever (Silver Model)
36	07999900	Spring
37	47000400	Leaf Switch
38	09415100	T. Spring
39	47000000	Spring
41	09416100	Keep Plate
42	47000100	Cassette Case
44	47000200	Mechanism Cover
45	47000300	Cylinder Ass'y
46	07976700	Belt, Counter
47	47000500	Leaf Switch
49	07999800	Button Lever (Orange)
51	07721100	Motor
52	47000600	Pulley
56	47000800	Capstan Support
57	47000900	Worm Gear
58	47001000	T. Spring
59	47001100	Rubber Cushion

Parts No.	Stock No.	Description
60	47001200	SD Screw
61	09410800	C. Spring
62	47001300	AS Cam
64	47001400	REW Spring
65	47001500	Start Lever D
66	47001600	Assist Gear C
67	47001700	Spring
68	47001800	Eject Sub Plate
69	47001900	Spring
70	47002000	Sensor
71	47002100	Stop Arm
72	47002200	Assist Gear A
73	47002300	Start Lever C
74	47002400	Sensor Arm
75	47002500	Spring
76	47002600	Tension Ass'y
77	47002700	Spring
78	47002800	Spring
80	47002900	Spring
81	47003000	Change Plate B
83	47003200	T. Spring
91	47003300	Belt, Tension
92	47003400	Flywheel
93	47003500	Belt, Capstan
94	47003600	Flywheel Gear
95	47003700	C. Spring
96	47003800	Spring
97	47003900	T. Spring
98	47004000	T. Spring
100	47004100	Lever Holder
105	47004200	Pause Plate Spring
106	47004300	Lock Pin
113	47004400	Start Lever A
114	47004500	Spring
201	09416700	B-Type Screw, M2 x 11
202	47004600	FT-Type Screw, M2.6 x 8
203	09416400	PD-Type Screw, M2.6 x 10
204	07710600	PD-Type Screw, M2.6 x 5
205	00489300	E-Type Washer, D4
206	47004700	PD-Type Screw, M2.6 x 30
207	09416500	WT-Type Screw, M2.6 x 6
209	51825000	T-Type Washer, FT3.0 x 0.25
210	08322600	E-Type Washer, D2.5
211	47004800	P-Type Washer,
212	00440500	PT-Type Screw, M2.6 x 8
213	09418300	BT-Type Screw, M2 x 5
214	47031200	FT-Type Screw, M2.6 x 4
215	47004900	T-Type Washer
216	51832300	CS-Type Washer

* • FT-Type: Flange Head Tapping
  • PD-Type: Pan Head Deltite

• Abbreviations

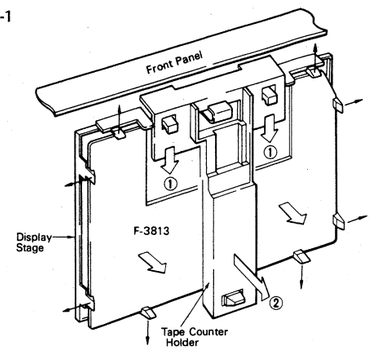

1. Pan Head Tapping Screw . . . PT Type
2. Washer Head Tapping Screw . . . . . WT Type
3. Pan Head Screw . . . . . P Type
4. Pan Head SEMS A Screw . . . PSA Type
5. Pan Head SEMS B Screw . . . PSB Type
6. Binding Head SEMS F Screw . . BSF Type
7. Binding Head Screw . . . B Type
8. Flat Counter Sunk Head Screw . F Type
9. Flat Counter Sunk Wood Screw . . . . . FC Type
10. Round Head Wood Screw . . . RH Type
11. Hex. Socket Setscrew . . SC Type
12. Slot Type Setscrew . . SS Type
13. Binding Head SEMS B Screw . . . . . BSB Type
14. Spring Washer . . . . . S Type
15. Plain Washer . . . . . P Type
16. Retaining Ring (E Washer) . E Type
17. Toothed Lock Washer (External) . . . . TLE Washer
18. Wave Washer
19. Hexagon Nut H Type Nut

6. MAIN PARTS REPLACEMENT

A. Replacement of Display Stage

1) Remove bonnet.
2) Remove tape counter belt and relay pulley. (See 4-2. Top View on page 6)
3) Remove tape counter holder from front panel. (See Fig. 6-1)
4) Remove circuit board F-3813 from display holder. (See Fig. 6-1)
5) Remove display holder from front panel.

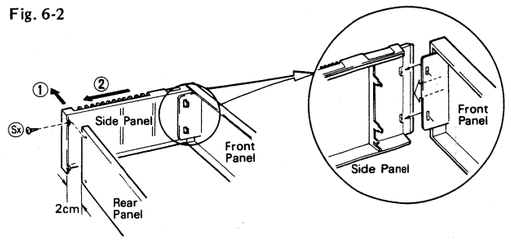
Fig. 6-1



B. Replacement of Side Panel L (R)

1) Remove bonnet and bottom plate.
2) Remove the screw (Sx) fixing side panel L (R) from rear panel side.
3) Shift the position of the side panel L (R) 2 cm in the arrow direction ① and then pull it the arrow direction ② to remove the side panel L (R). (See Fig. 6-2)

Fig. 6-2



C. Replacement of Front Panel Ass'y

1) Remove bonnet and bottom plate.
2) Remove side panel L and R. (See Replacement B)
3) Remove tension wire. (See 4-2. Top View on page 6)
4) Remove counter belt and relay pulley (See 4-2. Top View on page 6) from front panel.
5) Remove mechanism assembly. (See Replacement D.)
6) Remove tape counter holder from front panel. (See Fig. 6-1)
7) Remove circuit board F-3813 from display stage. (See Fig. 6-1)
8) Remove circuit board F-3814 from front panel.
9) Remove display stage from front panel. (See Replacement A.)

D. Replacement of mechanism assembly

(See 5. Exploded View of Mechanism Ass'y on page 7)

1) Remove bonnet, bottom plate, and cassette lid ass'y.
2) Disconnect REC spring (See 4-2. Top View on page 6) from change plate (79) of mechanism ass'y.
3) Remove counter belt (46) from relay pulley (See 4-2. Top View on page 6).
4) Remove four screws fixing mechanism assembly.

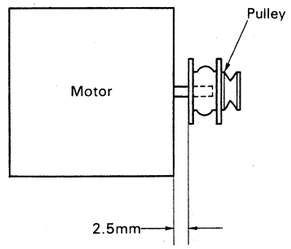
E. Replacement of Motor (51)

(See 5. Exploded View of Mechanism Ass'y on page 7)

1) Remove bonnet and bottom plate.
2) Disconnect REC spring (See 4-2. Top View on page 6) from change plate (79) of mechanism assembly.
3) Cut wires from motor.
4) Cut wires band (50).
5) Loosen three screws (S1) and (S2) fixing mechanism holder (55).
6) Remove three screws (60) fixing motor ass'y.
7) Pluck out pulley (52) from motor.

Note: When installing the pulley to the motor, adjust the gap between the motor and the pulley so as to be about 2.5 mm. (See Fig. 6-3)

Fig. 6-3



F. Replacement of Tension Belt (91) and Capstan Belt (93)

(See 5. Exploded View of Mechanism Ass'y on page 7)

1) Perform items 1) ~ 5) "E. Replacement of Motor" first.
2) Take out tension belt and capstan belt.

G. Replacement of Counter Belt (46)

(See 5. Exploded View of Mechanism Ass'y on page 7)

1) Remove cassette lid ass'y.
2) Remove two screws (S3) to take out mechanism cover (44).
3) Take out counter belt from relay pulley (See 4-2. Top View on page 6) and take up reel hub (14).

H. Replacement of Supply Reel Hub (12) and Take Up Reel Hub (14) (See 5. Exploded View of Mechanism Ass'y on page 7)

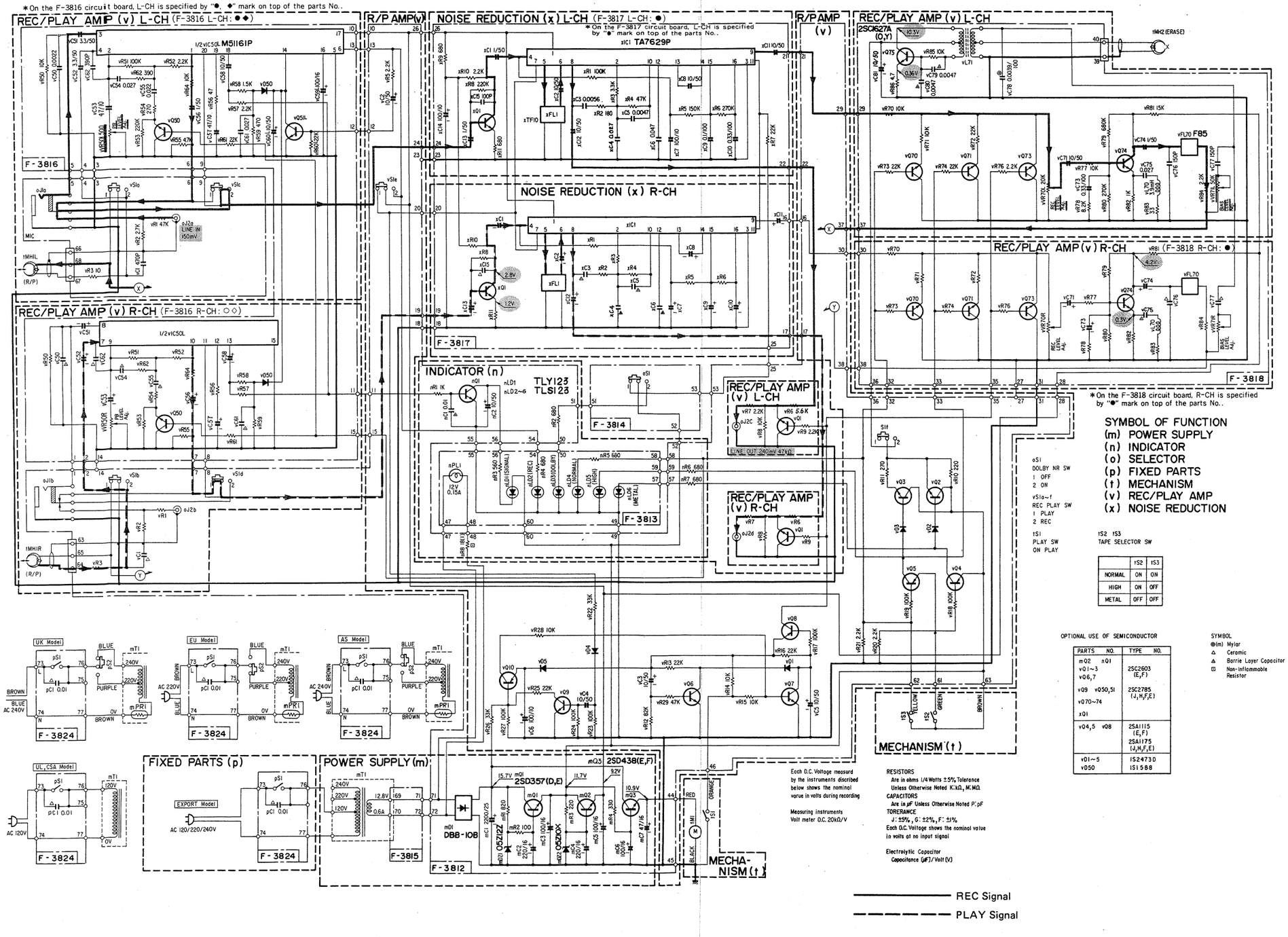
1) Remove cassette lid ass'y.
2) Remove two screws (13) to take out mechanism cover (44).
3) Take out ply-washer (10) to remove supply reel hub or take up reel hub.

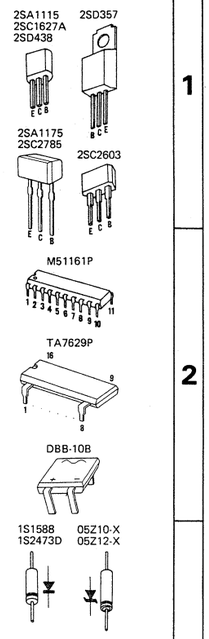
I. Replacement of Control Button (34) or REC Button (49)

1) Remove mechanism assembly.
2) Take out the button (34) or (49) from button shaft (33).

7. SCHEMATIC DIAGRAM

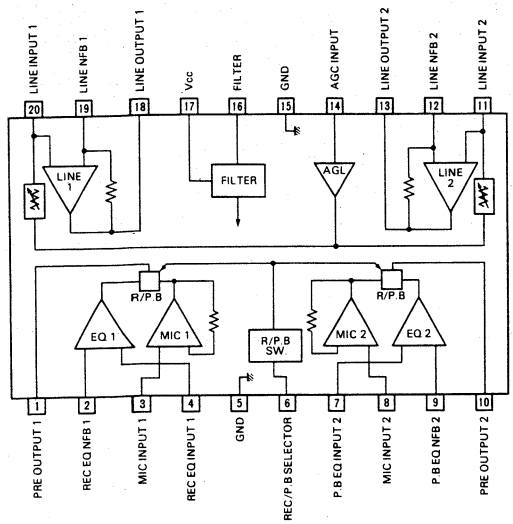
* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



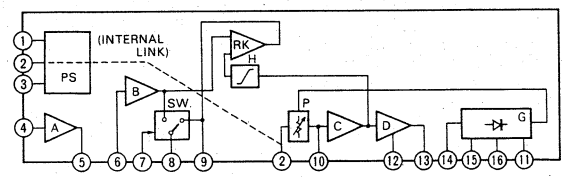


8. INTERIOR BLOCK DIAGRAM OF IC

● M51161P (MIC Amp. & PLAY EQ Amp. IC)

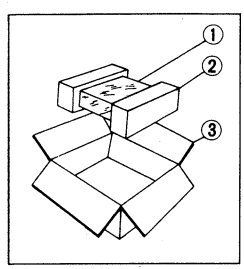


● TA7629P (B-type NOISE REDUCTION IC)



9. PACKING LIST

Parts No.	Stock No.	Description
1	91263810	Vinyl Cover
2	07949000	Styrofoam Packing
3	07977600	Carton Case (Silver Model)
	07977700	Carton Case (Black Model)



10. ACCESSORY LIST

Stock No.	Description
38103300	PJP Cord
94300500	Head Cleaner
46355400	Operating Instruction